

Water Conservation Programme Saves Over €50,000

DUN LAOGHAIRE SHOPPING CENTRE - DUBLIN



Project Background

In 2009, Management at Dun Laoghaire Shopping Centre decided to address their increasing water bills. Initially they addressed their own water usage in public toilets, where urinals were changed to waterless ones. However, in 2010, during a routine night inspection by Dun Laoghaire-Rathdown County Council, it was discovered that the Centre's water meter was running continuously throughout the night. This led the Centre Management on a journey to discover the source of the problem, which involved trying to locate any readily identifiable leaks. Those identified were repaired and, while this reduced water use, it did not completely eliminate the problem. A more detailed night-time survey identified that, while all landlord areas within the Centre were now leak-free, the problem of wasted water was related to rented units in the Centre.

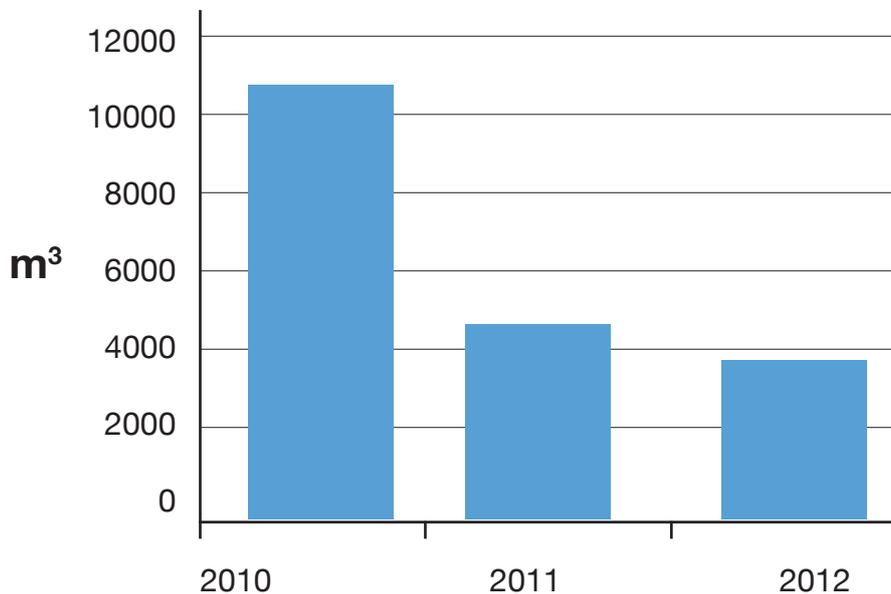
Summary of Project

Due to the lack of sub-metering for the individual units, it was not possible to identify exactly where the main waste of water was occurring. Management communicated, to all units, the need to ensure that all leaks were reported and asked them to turn off fittings daily at the close of business. While there was a decrease in background water consumption after this, there was still water being used each night.

Centre Management then asked each unit for permission to examine their water fixtures and fittings. Once permission was granted, all units were visited during normal trading hours and the sources of background water use were identified. Leaking urinals and water heaters were the main cause of background water use, and in one instance a ball cock was broken in a water tank within a tenant's area. As none of these items were actually causing a flood, in most circumstances the tenants were not aware that water was being wasted.

TOP TIP - Checking if water is being consumed when there is no activity in your business (e.g. overnight) is a very important first step. If there is, then you may have leaks and this is water and your money down the drain.

Figure 1. Water Consumption January To March - 1st Quarter



Financial Benefits:
 Cost Savings: €51,147 / Annum
 Investment: €2,000
 Payback: 2 Weeks

Environmental Benefits:
 Water reduced: 63% p.a.

The Result

Water consumption figures, for the first quarter of each of the past 3 years, are shown in Figure 1. Water used during the first quarter of 2011 was down by 54% compared with the same period in 2010 and this was related to the repair of the major leaks identified in the various units. While the decrease between the first quarter of 2011 and the same period of 2012 was only 12%, this is still a significant improvement as it has been related to better awareness of water use and further identification of smaller leaks which are more difficult to detect.

Since the improvement programme started, the Centre initiated a continual cycle of water reduction measures. An on-line Izar unit was fitted to the Council supply meter in 2010. This gives continual data on water use so that any sudden increase in use, which would indicate a leak, can be tracked. The water reduction programme run by Dun Laoghaire Shopping Centre has proven to be very educational for both the Centre Management and tenants alike. They have succeeded in:

- Eliminating leaks throughout the Centre and reducing to almost zero the background “use” of water
- The installation of an on-line continuous water monitoring system which allows instant leak identification
- Reduction in the service charge for tenants due to the reduced water costs for the Centre
- Promotion of Dun Laoghaire Shopping Centre’s Green Image

The Centre’s water improvement has been an ongoing journey that started 4 years ago. All the hard work done initially, investigating leaks and getting our night water use down to zero, has resulted in a system where we can monitor this to help prevent future water wastage going on without our knowledge.

- Adele Ryan, Centre Manager.